

What is claimed is:

1. An antistatic film with a surface resistivity of no greater than $10^{13} \Omega/\square$, comprising a metal oxide and conductive ultrafine particle mixed layer formed on the surface of a film.
- 5 2. An antistatic film according to claim 1, wherein the metal oxide and conductive ultrafine particle mixed layer comprises the metal of the metal oxide and the conductive ultrafine particles in a weight ratio (metal/conductive ultrafine particles) of 0.01-0.1.
- 10 3. An antistatic film according to claim 1, wherein the film is a polyimide film.
4. An antistatic film according to claim 3, wherein the polyimide film is obtained from a tetracarboxylic acid component and a diamine component.
- 15 5. An antistatic film according to claim 4, wherein the tetracarboxylic acid component is 3,3',4,4'-biphenyltetracarboxylic dianhydride.
6. An antistatic film according to claim 1, wherein the metal oxide is an aluminum oxide.
- 20 7. An antistatic film according to claim 1, wherein the conductive ultrafine particles have a mean particle size of no greater than 0.1 μm .
8. An antistatic film according to claim 1, wherein the conductive ultrafine particles are ITO ultrafine particles.
- 25 9. An antistatic film according to claim 1, wherein the mixed layer is formed by a coating method.
10. A process for manufacture of an antistatic film according to claim 1, which comprises coating the surface of a self-supporting film, obtained by casting and drying a solution of a film-forming heat-resistant resin precursor, with a mixture obtained by uniformly combining a metal compound which converts to a metal oxide upon heating, conductive ultrafine particles and a solvent, and then heating it to dryness, removing the solvent and

cyclizing the heat-resistant resin precursor.

11. A process for manufacture of an antistatic film according to claim 10, wherein the metal compound which converts to a metal oxide upon heating is an organic aluminum compound.

12. A process for manufacture of an antistatic film, which comprises coating the surface of a self-supporting film, obtained from a polyimide precursor solution, with a mixture comprising a metal compound which converts to a metal oxide upon heating, conductive ultrafine particles and a solvent, and then drying it to obtain a dry film with a metal compound and conductive ultrafine particle mixed layer, and heating the dry film at a temperature of 420°C or above to complete imide cyclization, thereby forming on the film surface a metal oxide and conductive ultrafine particle mixed layer having a surface resistance value of no greater than 10^{13} Ω/\square .